

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A waste water purification system including a waste water purification apparatus, wherein the waste water purification apparatus comprises:

purification means for purifying polluted salt water containing matter to be removed including particulate floating particles ~~such as of~~ plankton, oil particles, and organic matter, and polluted salt water ~~form from~~ factory effluent containing matter to be removed, generated from industrial production sites, including pollutant particles and phosphorus;

sludge recovery means for separating and collecting, from the waste water, sludge generated in purification treatment; and

means for discharging ~~the~~ purified salt water generated in the purification treatment; and

said purification means and said sludge recovery means comprising:

coagulation and separation means for forming flocs containing pollutant particles, and phosphorus ~~and the like~~ by infusing a coagulant, and for separating the flocs through at least a filtration process of filtering the flocs by a filter to create the purified salt water;

floc disintegration means for generating an acidic solution and an alkaline solution by electrolyzing part of the purified salt water and for disintegrating the flocs collected as sludge by use of ~~acidic solution/alkaline solution~~ one of the acidic solution and the

alkaline solution generated from electrolysis of a liquid;

coagulant regeneration means for regenerating the coagulant from matter forming the disintegrated flocs, separating the matter to be removed and the regenerated coagulant in the disintegrated flocs and extracting and separating the coagulant by separating the coagulant from the matter to be removed in raw water; and

sludge recovery and discard means for recovering and discarding the matter to be removed.

2.-5. (Canceled).

6. (Currently Amended) A waste water purification system according to claim 1, wherein said purification means comprises chemicals-free filtration means for physically filtering the polluted water with chemicals-free treatment, and coagulation and separation means for forming magnetic flocs containing pollutant particles, phosphorus and the like by infusing a coagulant and a magnetic powder, and for separating the magnetic flocs, wherein the magnetic flocs are magnetically separated and collected as sludge, the magnetic flocs are disintegrated, and then magnetic matter is recovered including a water purification apparatus, wherein the waste water purification apparatus comprises:

purification means for purifying polluted salt water containing matter to be removed including particulate floating particles of plankton, oil particles, and organic matter, and polluted salt water from factory effluent containing matter to be removed, generated from industrial production sites, including pollutant particles and phosphorus;

sludge recovery means for separating and collecting, from the waste water, sludge generated in purification treatment; and

means for discharging purified salt water generated in the purification treatment; and

said purification means and said sludge recovery means comprising:

coagulation and magnetic separation means for forming magnetic flocs containing pollutant particles and phosphorus by infusing magnetic matter and a coagulant and for separating the flocs through at least a magnetic separation and collection process of magnetically separating and collecting the magnetic flocs by magnetically attracting the magnetic flocs by a magnet to create the purified salt water;

floc disintegration means for generating an acidic solution and an alkaline solution by electrolyzing part of the purified salt water and for disintegrating the flocs collected as sludge by use of one of the acidic solution and the alkaline solution generated;

coagulant regeneration means for regenerating the coagulant from matter forming the disintegrated flocs, separating the matter to be removed and the regenerated coagulant in the disintegrated flocs and extracting the coagulant;

magnetic matter recovery means for recovering the magnetic matter by a magnet; and

sludge recovery and discard means for recovering and discarding the matter to be removed.

7. (Canceled).

8. (Original) A waste water purification system according to claim 1, wherein said waste water purification apparatus further comprises centrifugal separation means for centrifugally separating and recovering floating particles after the flocs have been disintegrated.

9-12. (Canceled).

13. (Currently Amended) A waste water purification system including a waste water purification apparatus, wherein the waste water purification apparatus comprises:

purification means for purifying polluted water containing matter to be removed including particulate floating particles ~~such as of~~ plankton, oil particles, and organic matter, and polluted water from factory effluent containing matter to be removed, generated from industrial production sites, including pollutant particles and phosphorus;

sludge recovery means for separating and collecting, from the waste water, sludge generated in purification treatment; and

~~the~~ means for discharging ~~the~~ purified water generated in the purification treatment; and

said purification means and said sludge recovery means comprises:

coagulation and separation means for forming flocs the containing pollutant particles, ~~and~~ phosphorus and ~~the like~~ by infusing a coagulant, and for ~~separates~~ separating the flocs to create the purified water;

floc disintegration means ~~for disintegrating the flocs collected as sludge by use of acidic solution/alkaline solution generated from electrolysis of a liquid~~ for generating an acidic solution and an

alkaline solution by electrolyzing the purified water and for disintegrating the flocs collected as sludge by use of one of the acidic solution and the alkaline solution generated;

coagulant regeneration means for regenerating the coagulant from matter forming the flocs, extracting and separating the coagulant ~~by separating the coagulant from~~ from the matter to be removed ~~in raw water;~~

fresh coagulant resupply means for supplying a fresh coagulant when the coagulant is deficient; and

sludge recovery and discard means for recovering and discarding the matter to be removed.

Amendment to the Drawing:

Figure 3 has been amended to amend the reference characters "42" and "43" used to designate the O rings to --57-- and --58--, respectively.